Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w21)

Sample course plan - Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Specialisation Biomedical Engineering

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1	**Chemistry**	**Electrical Engineering II: Alternating Current Networks and Basic Devices**	**Technical Thermodynamics II**	**Signals and Systems**	**Introduction to Control Systems**	**Foundations of Management**	**Advanced Internship AIW/ ES**
2	Chemistry I+II VL 4	Electrical Engineering II: Alternating VL 3 Current Networks and Basic Devices	Technical Thermodynamics II VL 2	Signals and Systems VL 3	Introduction to Control Systems VL 2	Introduction to Management VL 3	Advanced Internship AIW/ ES: SE 1 Preparation
3	Chemistry I+II HÜ 2	Electrical Engineering II: Alternating GÜ 2 Current Networks and Basic Devices	Technical Thermodynamics II HÜ 1	Signals and Systems GÜ 2	Introduction to Control Systems GÜ 2	Management Tutorial GÜ 2	Advanced Intenship AIW/ ES: Internship- SE 1 accompanying Seminar
4			Technical Thermodynamics II GÜ 1				
5							
6							
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**	**Fundamentals of Mechanical Engineering Design**	**Mathematics III**	**Fluid Dynamics**	**Numerical Mathematics I**	**Introduction into Medical Technology and Systems**	
8	Electrical Engineering I: Direct Current VL 3 Networks and Electromagnetic Fields	Fundamentals of Mechanical Engineering VL 1 Design	Analysis III VL 2	Fluid Mechanics VL 3	Numerical Mathematics I VL 2	Introduction into Medical Technology and VL 2 Systems	
9	Electrical Engineering I: Direct Current GÜ 2 Networks and Electromagnetic Fields	Fundamentals of Mechanical Engineering HÜ 2 Design	Analysis III GÜ 1	Fluid Mechanics HÜ 2	Numerical Mathematics I GÜ 2	Introduction into Medical Technology and PS 2 Systems	
10			Analysis III HÜ 1			Introduction into Medical Technology and HÜ 1 Systems	
11			Differential Equations 1 VL 2				
12			Differential Equations 1 GÜ 1				
			Differential Equations 1 HÜ 1				
13	**Mathematics I**	**Technical Thermodynamics I**		**MED I: Introduction to Anatomy**	**Heat Transfer**	**MED II: Introduction to Physiology**	
14	Linear Algebra I VL 2	Technical Thermodynamics I VL 2		Introduction to Anatomy VL 2	Heat Transfer VL 3	Introduction to Physiology VL 2	
15	Linear Algebra I GÜ 1	Technical Thermodynamics I HÜ 1			Heat Transfer HÜ 2		
16	Linear Algebra I HÜ 1	Technical Thermodynamics I GÜ 1	**Engineering Mechanics III (Dynamics)**				
17	Analysis I VL 2		Engineering Mechanics III VL 3	**MED I: Introduction to Radiology and Radiation Therapy**		**BIO I: Experimental Methods in Biomechanics**	
18	Analysis I GÜ 1		Engineering Mechanics III GÜ 2			Experimental Methods in Biomechanics VL 2	
	Analysis I HÜ 1		Engineering Mechanics III HÜ 1	Introduction to Radiology and Radiation VL 2 Therapy			
19		**Mechanics II: Mechanics of Materials**		**Computational Mechanics**	**Measurement Technology for Mechanical Engineers**	**Computer Science for Engineers - Programming Concepts, Data Handling & Communication**	**Bachelor Thesis**
20		Mechanics II VL 2		Computational Multibody Dynamics IV 2			
21	**Mechanics I (Statics)**	Mechanics II GÜ 2		Computational Mechanics GÜ 2	Measurement Technology for Mechanical VL 2 Engineering	Computer Science for Engineers - VL 3 Programming Concepts, Data Handling & Communication	
22	Mechanics I VL 2	Mechanics II HÜ 2	**Mechanical Engineering: Design (part 1)**	Computational Stuctural Mechanics IV 2	Measurement Technology for Mechanical PR 2 Engineering		
23	Mechanics I GÜ 2		Embodiment Design and 3D-CAD VL 2 Introduction and Practical Training		Practical Course: Measurement and PR 2 Control Systems	Computer Science for Engineers - GÜ 2 Programming Concepts, Data Handling & Communication	
24	Mechanics I HÜ 1		Mechanical Design Project I PBL 3				
25		**Mathematics II**	**Fundamentals of Materials Science (part 1)**	**Mechanical Engineering: Design (part 2)**	**MED II: Introduction to Biochemistry and Molecular Biology**		
26		Linear Algebra II VL 2	Fundamentals of Materials Science I VL 2	Team Project Design Methodology PBL 2			
27	**Computer Science for Engineers - Introduction and Overview**	Linear Algebra II GÜ 1	Physical and Chemical Basics of Materials VL 2 Science	Mechanical Design Project II PBL 3	Introduction to Biochemistry and VL 2 Molecular Biology		
28	Computer Science for Engineers - VL 3 Introduction and Overview	Linear Algebra II HÜ 1					
29		Analysis II VL 2		**Fundamentals of Materials Science (part 2)**	**BIO I: Implants and Fracture Healing**		
30	Computer Science for Engineers - GÜ 2 Introduction and Overview	Analysis II HÜ 1		Fundamentals of Materials Science II VL 2	Implants and Fracture Healing VL 2		
31		Analysis II GÜ 1					
32							

Non-technical Courses for Bachelors (from catalogue) - 6LP

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.